

REMARKS/ARGUMENTS

Claims 1-21 are pending. By this Amendment, new claims 20 and 21 are presented, and claims 1-19 are amended. Support for new claims 20 and 21 can be found, for example, in original claims 5 and 8. Support for the amendments to claims 1-19 can be found, for example, in original claims 1-19. No new matter is added. In view of the foregoing amendments and following remarks, reconsideration and allowance are respectfully requested.

Allowable Subject Matter

Applicants thank the Examiner for the indication in the Office Action that claim 13 contains allowable subject matter.

Rejection Under 35 U.S.C. §112, Second Paragraph

The Office Action rejects claims 1-19 as indefinite under 35 U.S.C. §112, second paragraph. Applicants respectfully traverse the rejection.

With respect to claims 4 and 14, the Office Action asserts that the term "high" renders the claims indefinite. Applicants submit that the term "high" must be read in the context of the claims and the specification. In claim 4, the term "high" is a portion of the term "high-energy powder grinding." "High-energy powder grinding" is a technique that is well-known to those of ordinary skill in the art and is described in the present specification, for example, at page 7, lines 32 to 34. In claim 14, the term "high" is a portion of the term "high molecular weight." "High molecular weight" is a descriptor that is well-understood by those of ordinary skill in the art and high molecular weight compounds are exemplified in the present specification, for example, at pages 14 to 15.

With respect to claim 6, the Office Action asserts that the term "hot" renders the claim indefinite. Applicants submit that the term "hot" must be read in the context of the claims and the specification. In claim 6, the term "hot" is a portion of the term "hot conditions." "Hot conditions" are described in the present specification, for example, at page 10, lines 9 to 12 and page 11, line 2.

With respect to claim 17, the Office Action asserts that the term "like" renders the claim indefinite. Applicants submit that the term "like" must be read in the context of the claims and the specification. In claim 17, the term "like" is a portion of the term "leather-like materials." "Leather-like materials" are described in the present specification, for example, at page 15, lines 15 to 17.

One of ordinary skill in the art would be readily able to determine the metes and bounds of the foregoing terms, when viewed in the context of the present specification. Accordingly, the terms do not render the claims indefinite.

Otherwise, by this Amendment, claims 1-19 are amended to obviate the rejection.

For the foregoing reasons, claims 1-19 are definite. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

#### Rejections Under 35 U.S.C. §102

##### A. Nguyen

The Office Action rejects claims 1-12, 18 and 19 under 35 U.S.C. §102(b) over U.S. Patent No. 5,141,837 to Nguyen et al. ("Nguyen"). Applicants respectfully traverse the rejection.

Claim 1 recites "[a] black perylene pigment, comprising an isomer according to formula Ia, an isomer according to formula Ib, or a mixture thereof ... wherein: the pigment

has a blackness value  $\geq 210$  when provided in an alkyd/melamine baking varnish" (emphasis added). Nguyen does not disclose or suggest such a pigment.

Applicants note that the high blackness value of the pigment of claim 1 is not an intrinsic property associated with the molecular structure of the pigment. This fact is well known to those of ordinary skill in the art. The blackness value can depend, for example, on the crystallinity and crystal structure of the pigment. This dependence is evident from the disclosure of Nguyen. In Nguyen, pigments change their color upon milling from black to red, without changing their molecular structure. *See Nguyen*, column 23, line 55 to column 24, line 20. Further, the present specification describes that the high blackness values recited in claim 1 are only achieved after milling, which is believed to induce a change in the crystal structure. Thus, it is clear that the blackness value of the pigment of claim 1 is not an intrinsic property of all pigments having the same molecular structure. *See generally* present specification, page 3, lines 9 to 17.

Preparation of the pigments of Nguyen is conducted, e.g., in accordance with the procedures set forth in Example 1. First, a perylene pigment is milled. *See Nguyen*, column 23, lines 55 to 60. The milling, however, is carried out for 10 days in the presence of a salt. *See id.* After 10 days of milling, the pigment and the salt crystals are broken down and closely mixed. This mixture is not a pigment, and would not satisfy "the pigment has a blackness value  $\geq 210$  when provided in an alkyd/melamine baking varnish" feature of claim 1. The pigment is not isolated from the mixture, but rather the combined components are subjected to further grinding. During the grinding a color change occurs from black to bright red. *See Nguyen*, column 24, lines 6 to 8. Only after this conversion to a bright red color is the pigment isolated. *See Nguyen*, column 24, lines 10 to 20. This bright red pigment certainly does not meet the blackness requirement of claim 1. Nguyen does not disclose or suggest each and every feature of claim 1.

Claim 11 recites "... condensing perylene-3,4:9,10-tetracarboxylic dianhydride with an aromatic ortho-diamine; and subsequently cyclizing; wherein: the aromatic ortho- or peri-diamine comprises at least one member selected from the group consisting of R1, R2 and X; and condensing and cyclizing are carried out in phenol or a nitrogen-containing, nonfused heteroaromatic as a reaction medium." Nguyen discloses general methods for synthesizing crude perylene pigments. *See* Nguyen, column 6, lines 42 to 64. However, the disclosed methods do not involve condensation and cyclization, as recited in claim 11. Nguyen fails to disclose or suggest each and every feature of claim 11.

As explained, claim 1 and 11 are not anticipated by Nguyen. Claims 2-10, 12, 18 and 19 depend variously from claims 1 and 11 and, thus, also are not anticipated by Nguyen. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

B. Hayata

The Office Action rejects claims 1 and 2 under 35 U.S.C. §102(b) over U.S. Patent No. 6,268,097 to Hayata et al. ("Hayata"). Applicants respectfully traverse the rejection.

Claim 1 is set forth above. Hayata does not disclose or suggest such a black perylene pigment. In synthesis example 1 of Hayata, a wet cake is produced that is frozen, thawed, filtered and dried to obtain a hybrid pigment. *See* Hayata, column 8, lines 55 to 57. No measures, such as milling, grinding or comminution, which would alter or particularly decrease the size of the pigment particles, are described in Hayata. Accordingly, for the reasons discussed above with respect to Nguyen, the hybrid pigment of Hayata would not satisfy "the pigment has a blackness value  $\geq 210$  when provided in an alkyd/melamine baking varnish" feature of claim 1. Hayata fails to disclose or suggest each and every feature of claim 1.

As explained, claim 1 is not anticipated by Hayata. Claim 2 depends from claim 1 and, thus, also is not anticipated by Hayata. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

C. JP 047

The Office Action rejects claims 1 and 2 under 35 U.S.C. §102(b) over JP 2002-038047 ("JP 047"). Applicants respectfully traverse the rejection.

Claim 1 is set forth above. JP 047 does not disclose or suggest such a black perylene pigment. In JP 047, a method for producing a pigment is described, but the method does not include measures, such as milling, grinding or comminution, which would alter or particularly decrease the size of the pigment particles. See JP 047, paragraph [0077]. Accordingly, for the reasons discussed above with respect to Nguyen, the pigment of JP 047 would not satisfy "the pigment has a blackness value  $\geq 210$  when provided in an alkyd/melamine baking varnish" feature of claim 1. JP 047 fails to disclose or suggest each and every feature of claim 1.

As explained, claim 1 is not anticipated by JP 047. Claim 2 depends from claim 1 and, thus, also is not anticipated by JP 047. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

D. JP 277

The Office Action rejects claims 1 and 2 under 35 U.S.C. §102(b) over JP 08-006277 ("JP 277"). Applicants respectfully traverse the rejection.

Claim 1 is set forth above. JP 277 does not disclose or suggest such a black perylene pigment. In JP 277, a method for producing a pigment is described, but the method does not include measures, such as milling, grinding or comminution, which would alter or

particularly decrease the size of the pigment particles. See JP 277, paragraphs [0060] to [0062]. Accordingly, for the reasons discussed above with respect to Nguyen, the pigment of JP 277 would not satisfy "the pigment has a blackness value  $\geq 210$  when provided in an alkyd/melamine baking varnish" feature of claim 1. JP 277 fails to disclose or suggest each and every feature of claim 1.

As explained, claim 1 is not anticipated by JP 277. Claim 2 depends from claim 1 and, thus, also is not anticipated by JP 277. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

E. Mizuguchi 046

The Office Action rejects claims 1-3 and 14-16 under 35 U.S.C. §102(b) over WO 03/010241 ("Mizuguchi 046")<sup>#</sup>. Applicants respectfully traverse the rejection.

Claim 1 is set forth above. Mizuguchi 046 does not disclose or suggest such a black perylene pigment. The method of obtaining pigments described in Mizuguchi 046 is discussed in the present specification, for example, at page 3, lines 10 to 18. As shown in Comparative Example C2 of the present specification, the pigments of Mizuguchi 046 do not satisfy claim 1. See present specification, Table 2, page 28. Mizuguchi 046 fails to disclose or suggest each and every feature of claim 1.

As explained, claim 1 is not anticipated by Mizuguchi 046. Claims 2, 3, 15 and 16 depend from claim 1 and, thus, also are not anticipated by Mizuguchi 046. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

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<sup>#</sup> Discussion of Mizuguchi 046 is made with reference to U.S. Patent No. 7,105,046, which the Office Action asserts is an English-language equivalent thereof.

F. Mizuguchi 675

The Office Action rejects claims 1-3, 14-16 and 19 under 35 U.S.C. §102(b) over WO 03/010242 ("Mizuguchi 675")\*. Applicants respectfully traverse the rejection.

Claim 1 is set forth above. Mizuguchi 675 does not disclose or suggest such a black perylene pigment. The method of obtaining pigments described in Mizuguchi 675 is discussed in the present specification, for example, at page 3, lines 10 to 18. As shown in Comparative Example C2 of the present specification, the pigments of Mizuguchi 675 do not satisfy claim 1. *See* present specification, Table 2, page 28. Mizuguchi 675 fails to disclose or suggest each and every feature of claim 1.

As explained, claim 1 is not anticipated by Mizuguchi 675. Claims 2, 3, 15, 16 and 19 depend from claim 1 and, thus, also are not anticipated by Mizuguchi 675. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

G. Neumann

The Office Action rejects claims 1, 2, 14, 15, 18 and 19 under 35 U.S.C. §102(b) over U.S. Patent No. 4,556,622 to Neumann et al. ("Neumann"). Applicants respectfully traverse the rejection.

Claim 1 is set forth above. Neumann does not disclose or suggest such a black perylene pigment. In Neumann, a method for producing a pigment is described, but the method does not include measures, such as milling, grinding or comminution, which would alter or particularly decrease the size of the pigment particles. *See* Neumann, column 7, lines 7 to 11. Accordingly, for the reasons discussed above with respect to Nguyen, the pigment of Neumann would not satisfy "the pigment has a blackness value  $\geq 210$  when provided in an

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\* Discussion of Mizuguchi 675 is made with reference to U.S. Patent No. 7,083,675, which the Office Action asserts is an English-language equivalent thereof.

alkyd/melamine baking varnish" feature of claim 1. Neumann fails to disclose or suggest each and every feature of claim 1.

As explained, claim 1 is not anticipated by Neumann. Claims 2, 15, 18 and 19 depend from claim 1 and, thus, also are not anticipated by Neumann. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

Rejections Under 35 U.S.C. §103

A. Mizuguchi 046

The Office Action rejects claims 4-8, 10 and 17-19 under 35 U.S.C. §103(a) over Mizuguchi 046. Applicants respectfully traverse the rejection.

For the reasons discussed above, claim 1 would not have been rendered obvious by Mizuguchi 046. Claims 4-8, 10 and 17-19 depend from claim 1 and, thus, also would not have been rendered obvious by Mizuguchi 046. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

B. Mizuguchi 675

The Office Action rejects claims 4-8, 10, 17 and 18 under 35 U.S.C. §103(a) over Mizuguchi 675. Applicants respectfully traverse the rejection.

For the reasons discussed above, claim 1 would not have been rendered obvious by Mizuguchi 675. Claims 4-8, 10, 17 and 18 depend from claim 1 and, thus, also would not have been rendered obvious by Mizuguchi 675. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.



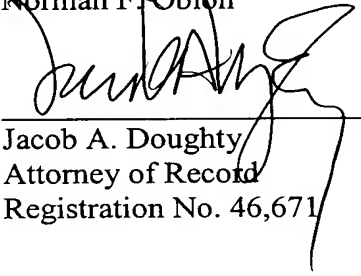
Conclusion

For the foregoing reasons, Applicants submit that claims 1-21 are in condition for allowance. Prompt reconsideration and allowance are respectfully requested.

Respectfully submitted,

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